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AUTHOR Curtis, Jonathan; And Others
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ABSTRACT

The importance of summer instruction for children from lower socioeconomic strata (SES) is emphasized by research which shows that the gap in achievement levels between higher SES children and lower SES children that is evident during the regular school year becomes greater during the summer. An examination of summer school programs in Austin, Texas, and evaluative reports on other summer schools suggests that participation in summer school is not effective in raising academic achievement on the elementary level. These findings indicate a need to experiment with new summer instruction programs in school districts committed to improving academic achievement among low SES children. Practical experience and information from summer school reports identify some possible sources of poor performance during summer school sessions, among which are: 1) time constraints; 2) lack of organization; 3) minimal expectations among students and teachers; 4) lack of continuity between regular school and summer school; 5) a disproportionately large number of participants from low income families; 6) poor measurement techniques; and 7) poor attendance. Summer instruction may be made more effective by: 1) extending the duration of summer school; 2) broadening teacher and student expectations; 3) emphasizing basic skills and major content areas; 4) providing greater student motivation; 5) careful planning; 6) increasing staff size; and 7) efficient evaluation. (MJL)

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IMPROVING ACHIEVEMENT FOR PUPILS OF LOW SOCIO-ECONOMIC STRATA: THE GAMBLE WE MUST TAKE

Jonathan Curtis, Ph.D.
David Doss, Ph.D.
Patsy Totusek, Ph.D.

Austin Independent School District
Office of Research and Evaluation

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The paper addresses four major questions:

- Are summer schools effective?
- Why are summer schools a gamble we must take?
- What are the potential sources of poor summer school performance?
- What can schools do that might positively affect summer learning?

Summer schools have generally been ineffective in improving student achievement. Since much of the academic divergence between children from higher and lower socio-economic strata occurs during the summer, effective summer instruction is crucial to children from the lower socio-economic strata. Hypotheses for poor summer school achievement results are listed and suggestions for possible improvement are provided.

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IMPROVING ACHIEVEMENT FOR PUPILS OF LOW SOCIO-ECONOMIC STRATA:

THE GAMBLE WE MUST TAKE

This paper addresses four major questions:

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Are Summer Schools Effective?

An examination was made of the summer school programs offered in the Austin Independent School District over a period of four years. Descriptions of the summer school programs and the evaluation findings for each are provided in Attachment 1. Analysis of Attachment 1 reveals many attempts have been made to use a variety of curriculum and instructional practices in the Austin summer school programs. Despite the type of summer school offered, however, the results have been disappointing. It has been Austin's experience that:

> *Participation in a summer school is not an effective means of enhancing academic achievement on the elementary level. Comparable students who do not attend summer school perform as well on standardized achievement tests as summer school participants.*

A literature review was performed to determine if this conclusion was typical of conclusions drawn about summer schools conducted elsewhere. The literature review revealed that many summer schools are evaluated on the basis of subjective rather than objective data. Those summer school studies that were based on a quantitative assessment of academic growth, however, tend to support the Austin findings.

Three sources were particularly helpful in formulating a position on the effectiveness of summer school instruction. Relevant citations from each are provided below.

(Hoepfner, 1980)

1. "Students who attend summer school tend to be low-achieving and comp-ed students." (p. 81)

2. "Summer school does not provide a very intensive academic experience." (p. 81)

3. "Students who attend summer school grow at the same rate as similar ones who don't go to summer school." (p. 81)

(Hyens, 1978)

1. "Less advantaged children learn substantially more in schools in which the majority of the peers are from higher income families." "...lower status students benefit from attending class with more advantaged peers." (p. 55, p. 56)

(Badal, 1967)

1. Students attending the summer program failed to evidence growth in reading and vocabulary skills.

2. Summer school teachers reported satisfactory academic achievement, motivation, improvement in study habits, and improvement in self-concept for their students.

Other useful studies included David (1974), David and Pelavin (1977), Fox et al. (1969), National Institute of Education (1978), Trisman et al. (1976), and Womble (1977).

As indicated before, consideration of these sources leads to the conclusion that summer school instruction has generally not been effective in promoting academic achievement. While summer school teachers may feel that progress is being made, standardized achievement tests have shown otherwise. It also appears that summer school participants are usually low-achieving and compensatory education students, and that the absence of more advantaged students in the programs may result in inadequate challenge to the participants.

Why are Summer Schools a Gamble We Must Take?

The importance of summer instruction for children from lower socio-economic strata (SES) is placed in perspective by Heyns (1978):

> "A comparison of the increasing gaps in cognitive achievement observed between sample children {typically low SES} and the {national} norming sample yields the conclusion that the summer differential is responsible for perhaps 80% of the gap." (p. 48)

Consequently, it could be argued that summer is a crucial time for low SES children in that most of the achievement differential occurs at this time. What happens is that higher SES children demonstrate a higher rate of achievement than lower SES children. The difference in the rate of divergence of

these populations is low during the regular school year but high during the summer months. Figure 1 illustrates the situation.

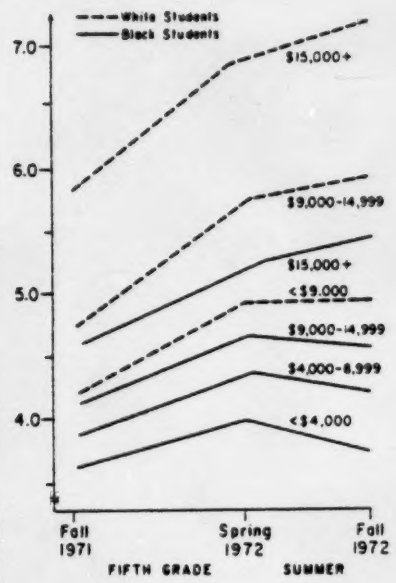

Figure 1. Rates of cognitive growth in word knowledge achievement, by race and family income, for sixth-grade students. (Heyns, 1978, p. 47)

Hoepfner's (1980) recent work on summer school effectiveness, as part of the Title I Sustaining Effects Study, suggests the 80% figure used by Heyns may be an overestimate. Hoepfner argues that due to the way tests were normed in the past (given to the norming sample at only one time during the year), previous research overestimated the gains made by low-achieving students during the regular school year and overestimated the loss during the summer. Hoepfner states, "The artificial school-year improvement comes with the price of equally artificial 'summer drop-off.'" He argues that "there is no tendency for students to lose school-year gains over the summer." However, he also notes that low-achieving students tend to gain at slightly lower rates during the summer than their peers. Therefore, while summer is important in the development of the ever-widening gap between low and higher achieving students, it may not be as important as Heyns suggests. However, the potential still exists for using the summer as a time for reducing or eliminating the growth of that gap.

One of Austin's goals is the improvement of achievement among low SES children. Other urban districts, due to their population characteristics, embrace a comparable goal. Such goals place school districts in a dilemma. The school districts are committed to improving the academic achievement of low SES children. However, most of the differential in learning between high and low SES children may occur during the summer when little formal schooling takes place. Furthermore, the schooling traditionally provided in the summer has not been effective.

As a result, school districts are placed in a position where they must abandon their goal of equal educational opportunity or find a way to make summers academically productive for low SES students. Districts must give up their goals for low SES students, or gamble with declining financial resources on unproven summer school programs substantially different from previous attempts. While the odds of success may be poor, the price of defeat is unacceptable. It is a "gamble we must take."

What are the Potential Sources of Poor Summer School Performance?

The following is a listing of hypotheses for poor summer school results. The hypotheses are derived from our own experiences and from suggestions in the summer school literature. They are not, for the most part, verified experimentally and may not be true factors of poor summer school results. Hypotheses for poor summer school results include:

1. too short a duration. Generally summer school sessions range from 3-6 weeks.

2. too loosely organized. Summer schools are the "stepchild" of education, often supported with insufficient planning and insufficient resources. Instruction may be less structured and "fun" activities are generally more prevalent in summer than in the regular school year. Teachers are busy with their regular classes until the end of school. Thus, there is little time to organize and prepare for summer instruction.

3. too far away (in time) from the beginning of the school year. Most summer schools are conducted in either early or midsummer. Students may forget their summer learning before school begins in the fall.

4. too little expectation of participants and teachers. "After all it is summer and the other children are out of school." Academic demands including the assignment of homework are generally minimized.

5. too much discontinuity between the regular school and summer school. There are new teachers, new students, new rules and regulations. Knowledge about the students' skills and behaviors are seldom passed on to the summer school teacher.

6. too much teacher time is taken in reassessing student needs. It takes time for a new teacher to reassess the skills of students. In summer instruction where the time period is short, the proportion of the assessment time to instruction is much higher than it is for the regular school year.

7. too great a proportion of the summer school time is used to establish good student-teacher rapport and classroom behavioral expectations.

8. too few hours of instruction a day. The typical summer school lasts about four hours a day or less.

9. too often among teachers, administrators and parents there is a perception of summer school as "day care."

10. too great a proportion of the participants are from low-income families. Research suggests that students from low-income families tend to do better academically when placed with students from higher income families.

11. too insensitive measurement instruments. The instruments used may be insensitive to the changes that take place. (At the same time we must ask if instruction is valuable that cannot produce a change on norm-referenced tests.)

12. too hot. The heat of summer is less conducive to learning than the cooler parts of the year.

13. too much teacher fatigue. Teachers may not have had time to "recharge their batteries" before summer instruction is upon them.

14. too low an attendance rate. The student must be exposed to the learning environment in order to learn.

What Can Schools Do That Might Positively Affect Summer Learning?

Posing problems may be enlightening but it does not provide any solutions (potential or real). The following are provided as conditions or actions that might bring about effective summer instruction. Many of these may be ineffective but it is through trying these and others that a key to effective summer instruction may be found. The readers are encouraged to formulate conjectures of their own.

What Can Schools Do?

- Make summer school longer by:
  - extending the dates of summer school.
  - offering "at-home" reading and math exercises for the entire summer. (Tutoring could be provided by parents, older siblings, or high achieving students. "At-home" exercises could be offered throughout the summer or follow the usual 3-6 week summer school session).
  - providing a learning emersion camp for a week or two following summer school in which contingency management is used extensively.

- Be more demanding in their expectations of pupils and teachers (make summer school academically rigorous.)

- Emphasiz basic skills and major content areas.

- Incorporate behavior modification and contingency techniques into the classroom management procedures to help assure the students are motivated.

- Plan for summer school far in advance of the summer
  - to alleviate teacher fatigue
  - to provide more carefully developed and structured instruction
  - to encourage participation of exemplary teachers
  - to carefully integrate characteristics into the instruction that may result in effective teaching.

- Increase individual pupil instructional interactions by
  - utilizing low pupil/teacher ratios
  - providing tutors to aid summer school teachers
  - using computers to aid the summer school teachers in providing drill activities
  - providing a program of rewards for good attendance.

- Provide greater continuity of instruction for summer school participants by
  - hiring teachers whose school year students will be attending summer school
  - making specific skill levels information available to the summer school receiving teacher.

- Make the summer school day longer.

- Evaluate summer school programs in sufficient scope to allow the identification of those characteristics that facilitate or impede summer achievement gains.

SUMMARY

Summer is a time when most of the divergence in academic achievement occurs between higher and lower SES children.

Unfortunately, summer schools in Austin and across the country are typically ineffective. They may provide good quality day care but they do not result in better academic performance for students who attend than comparable students who do not attend.

Thus, school districts that set a goal of improving the achievement of low SES students are faced with a dilemma. On the one had, improved achievement for low SES pupils is the goal. On the other hand, most of the divergence between children of lower and higher SES occurs during the summer when regular schooling is not in session. Furthermore, the schooling that has traditionally been provided in the summer is not effective.

By analyzing the elements that may impede or inhibit successful summer schools and by identifying elements that may promote good summer instruction, it may be possible to develop more academically successful summer programs. Better organization, longer duration and academically stronger programs may be essential keys to a solution.

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SUMMER SCHOOL FINDINGS FROM AUSTIN

Project Name	Number of Summer School Students	Grade Levels	Number of Campuses	Number of Summer School Days	Month(s) Summer School Offered	Cost Per Student	Description of Program	Staff Development	Student Outcomes
Title I Summer School, 1977	766	K-5	3	19 half-days	June-July	$ 81.67	A distinct instructional model was used on each of three summer school campuses. Each approach provided instruction in literature and communication skills through the use of a different methodology.	No information available.	A sample of students attending summer school and a control group were pre-tested at the beginning of summer school and posttested at the end with a specially developed criterion-referenced vocabulary test. A significant difference between the summer school and control students was found at one of the three campuses involved. However, summer school students as a total group did not gain significantly more on the vocabulary test than the control group. When tested at the end of the summer school, the summer school students did not show a more positive attitude toward school than the control students.
State Compensatory Education (SCE) Summer School, 1978	235	6	3	10 half-days (Blanton Elementary) 15 half-days (Allan and Martin Elementary)	June (Blanton) July-August (Allan and Martin Elementary)	$131.92	The objectives for the Blanton summer school program concerned student orientation to the school, piloting a new reading curriculum, and staff development. The objectives for the Allan and Martin summer school programs concerned student orientation to the school, student achievement in reading and math, and staff development.	The teachers participated in one-half day of staff development during each day of summer school instruction. At Blanton Elementary, the Blanton Principal organized and presented the staff development activities. Every staff development session was devoted to a different aspect of the topic "How Low Socio-Economic Students Learn." Each session a particular skill was identified to use in working with students on the following day. Videotapes of teachers using the various skills in the classroom were made on a daily basis, and were reviewed during the staff development. The staff development activities were rated above-average on a standardized workshop scale. The staff development activities for Allan and Martin were held jointly on one campus. The staff development sessions were organized and presented by a District instructional coordinator. Among other things time was spent in reviewing educational theories involving the achievement modes of low SES students, and examining various vocabulary exercises. The staff development activities were rated below-average on a standardized workshop scale. It was concluded that it may not be	Summer school students were significantly more knowledgeable about school procedures than control students when tested on the first day of school. It was not known how many school days it would take the control students to acquire the same amount of school knowledge, nor was it known what effect the summer school orientation activities would have upon the classroom behavior, attendance, achievement, and self-esteem of summer school students during the regular school year. At Allan and Martin, summer school students received significantly greater scores on a criterion-referenced reading test than matched non-summer school students, and received essentially the same scores on a criterion-referenced math test as matched non-summer school students. Both criterion-referenced tests were administered the first two days of the fall school term. Summer and matched non-summer school students received approximately the same scores on the reading and math portions of the CAT when it was administered in September, 1978. Apparently the reading and math skills the students acquired during summer school did not improve their performance on a standardized norm-referenced test. No achievement measures were administered to the Blanton students in that the Blanton summer school activities focused on student orientation to the new facilities rather than academics.

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Project Name	Number of Summer School Students	Grade Levels	Number of Campuses	Number of Summer School Days	Month(s) Summer School Offered	Cost Per Student	Description of Program	Staff Development	Student Outcomes
SCE Summer School, 1978 (continued)								wise to combine teachers from different schools in one training program, in that their needs may be different. It was also observed that staff development activities may lose some of their effectiveness if the pace is too intense and teachers do not have ample opportunity to work in their classrooms and concentrate on practical concerns.	
Title I Summer School, 1978	658	K-5	3	23 half-days	June-July	$ 165	Three instructional models were designed to reinforce and supplement instructional activities used during the 1977-78 school year. The instructional models taught reading through an emphasis on children's literature, science, or social studies. A different model was used on each of the summer school campuses. The models are described below. Children's Literature Model: Teachers and consultants designed instruction based on children's literature. Techniques used included teacher's reading to students, creative writing and dramatics, writing sequels, word games and puzzles. Vocabulary in Action Through Science Model: Vocabulary development was stressed within the content field of science. Language Experience Through Social Studies Model: Content was based on everyday experiences of students, using such materials as maps, filmstrips on Central Texas, newspapers, cameras, and postal material. The program was closely related to the social studies curriculum used by the District, with the emphasis on vocabulary development through extensive reading and writing. As part of all three models, students took field trips that were coordinated with the lessons. Classroom observations and a teacher questionnaire revealed the summer school program was implemented as planned. Overall, the teachers gave the summer school above-average ratings. For the most part, the teachers were experienced. On the average, 3.3 of their years of teaching experience was acquired in Title I Schools. About 68% of the students missed three or fewer days. About half of the students were absent no more than once.	The teachers participated in one-half day of staff development during each day of summer school instruction. The teachers rated the staff development activities slightly above average. A total of 97% of the teachers said they used the skills they learned in the staff development sessions with the summer school students.	Despite the fact that the program appeared to be well implemented and well attended, the impact of the summer program was not sufficiently great to produce a significant gain in achievement greater than that experienced by non-summer school students. The California Achievement Test (CAT) was administered as a pretest in April 1978 and as a posttest in October 1978. Analyses of the gains made on the reading section by the summer school students and a control group of students matched on school, grade, sex, and April CAT scores showed no significant differences when the analyses were done by summer school site. When students from the three sites were combined, a significant difference was found at grade two; however, it favored the students who did not attend summer school. To investigate the long-term impact of summer instruction, the achievement gains from April 1978 to April 1979 were examined for 1978 Title I summer school participants and their matches. The results showed there was no significant difference between the gains made by the students over the intervening year.

Project Name	Number of Summer School Students	Grade Levels	Number of Campuses	Number of Summer School Days	Month(s) Summer School Offered	Cost Per Student	Description of Program	Staff Development	Student Outcomes
Combined Title I and Migrant, 1979	220	187 (K-5)	2	20 (half-days)	June-July	$ 130	The summer school curriculum for both the pre-kindergarten and K-5 students centered upon remediation and enrichment activities in reading, math, and oral language development. Three groups of students participated in the summer school activities: Title I students whose tuition was paid by SCE funds, Migrant students whose tuition was paid with Migrant funds, and students whose tuition was not paid for through compensatory education funds.	No information available.	The reading portion of the CAT was administered as a pretest (April 1979) and posttest (October 1979) to the K-5 Title I and Migrant summer school students. The summer school students did not make significantly greater gains than matched students who did not attend summer school. When the test results were examined by source of tuition (Title I, Migrant, or tuition paid), none of the groups showed evidence of a general, positive effect. The pre-kindergarten students were tested at the beginning and end of summer school with the Tests of Basic Experiences (Language Test). Significant gains were made between pre- and posttesting. No control group was available.
Title I 1980	139	24 (K) 42 (Gr. 1) 21 (Gr. 2) 14 (Gr. 3) 17 (Gr. 4) 11 (Gr. 5)	Students Worked at Home	The program lasted 10 weeks, and required 10-20 hours of instruction.	June-August August-October (Two 10-week sessions)	$ 35	A summer school At-Home Program was used to offer reading instruction to low-achieving children. Participants received one of eight different reading kits (called "sessions") designed to correspond to their current reading ability. Sessions ranged in difficulty from pre-kindergarten to sixth-grade reading levels. Each session consisted of 10 lessons which were completed at home over a 10-week period. The lower level sessions provided opportunities for parents to plan an active role in their child's reading instruction; the higher level sessions allowed for more independent work on the part of the child. Completed lessons were sent to the At-Home headquarters in Maryland, where they were corrected by certified teachers and then returned to the students. Additional materials, designed for enrichment or remediation, were sometimes included with corrected lessons. All participants received a certificate; those who completed all 10 lessons also received an At-Home T-shirt. A special banquet was held in mid-August to honor the students whose performance in the program was outstanding.	No staff development required.	Standardized achievement tests were administered as pre-tests in the spring of 1980, and as posttests in the fall of 1980. The pretest for the kindergarten students was the Boehm Test of Basic Concepts and the posttest was the Metropolitan Readiness Tests. For students in grades one through six, the Iowa Tests of Basic Skills served as the pre- and posttest measure. The non-summer school students in the control group received the same pre- and posttest measures as their matched counterparts. Analysis of the data revealed the program had no discernible impact on reading achievement as measured by standardized test scores. Achievement gains were not related to the number of lessons completed, and students who had participated in the program in previous years did not make larger gains than those participating for the first time. A questionnaire administered to the parents revealed most were satisfied with the parent training they received, and few reported any problems in finding assistance when necessary. Most of the parents indicated their children enjoyed the program, and many expressed a wish for its continuation.